

## **Tender Document**

**Tender invitation for the procurement of various equipment under  
RUSA 2.0 scheme**

**Tender No. AU / DRD / RUSA 2.0 / Tender – 02 / 7779 / 2024**




**Registrar  
Annamalai University  
Annamalainagar - 608 002  
Tel: 04144-238259,  
Fax: 04144-238080**

**(Visit us at <http://www.annamalaiuniversity.ac.in>)**

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## TENDER NOTICE

	<b>REGISTRAR</b> <b>ANNAMALAI UNIVERSITY</b> <b>ANNAMALAINAGAR – 608 002.</b>
Office of Issue	Registrar, Annamalai University, Annamalainagar – 608 002.
Tender No.	<b>Tender No. AU / DRD / RUSA 2.0 / Tender – 02 / 7779 / 2024</b>
Tender Forms Available at Website	<b><u><a href="http://www.annamalaiuniversity.ac.in">http://www.annamalaiuniversity.ac.in</a></u></b>
Date and Time of Issue/Publishing	11.03 .2024                      10.45 AM
Document Download/Sale Start Date &	11.03 .2024                      10.45 AM
Tender Submission Start Date & Time	11.03 .2024                      10.45 AM
Tenders Submission Last Date & Time	26.03 .2024                      05:00 PM
Date and Time of opening of Technical bid	27.03.2024                      11:00 AM
Place of opening of Technical bid	Conference Hall, Golden Jubilee Building, Annamalai University, Annamalainagar - 608 002
Date of opening of Financial bid	To be intimated later

### **Sealed tender are invited for the following equipments**

S.No.	Item Description	No. of Units
1.	Gel Documentation with CCD camera	1 No.
2.	Fuming cupboard	1 No.
3.	Vacuum Evaporator	1 No.
4.	Random access biochemistry Auto Analyser	1 No.
5.	Portable Bio Gas Analyser	1 No.
6.	Phytoplankton Net 64m Nitex mesh	1 No.
7.	Para monitor, sensor system with underwater camera and accessories	1 No.
8.	Blood cell counter	1 No.
9.	Water circulation systems with accessories	1 No.
10.	Labomed Trinocular Zoom stereo microscope	1 No.
11.	Lithium Battery 150AH	6 Nos.
12.	Solar PV panels 540 W	8 Nos.

13.	IGBT inverter	1 No.
14.	Storage Batteries Heavy Duty	10 Nos.
15.	Storage Batteries Normal Duty	10 Nos.
16.	Desktop computer	4 Nos.
17.	Autoclave	1 No.
18.	Centrifuge	1 No.
19.	Incinerator	1 No.
20.	Arduino-ESP32sensors IoT trainer	25 Nos.
	Jumper cables (3sets)	10 sets
	Desktop computer	1 No.
	Online UPS 5KVA	1 No.
	Sensor module	2 sets
21.	Solid test sensor cum data logger NPK	1 No.
	pH, EC, Temperature and Moisture sensor with Data logger	1 No.
	Methane Analyzer (CH4)	1 No.
	CO <sub>2</sub> Analyzer	1 No.
22.	SLR Camera (DSLR D3300)	1 No.
	Video Camera	1 No.
	Audio video work station	1 No.
	Audio recording mixing console	1 No.

The equipments are procured for various Departments of Annamalai University under RUSA 2.0 scheme from Original Equipment Manufacturers (OEM) or Authorized Distributors / Authorized Dealers / Indian Companies. Prices quoted should be F.O.R. Destination, inclusive of all levies and taxes and packing & forwarding charges etc.

Tenderer shall have to deposit **EMD of 2% for quoted price** in the form Demand Draft drawn on any scheduled bank payable at Annamalainagar in favour of "The Registrar, Annamalai University, Annamalainagar - 608002" along with the tender.

The cost of the tender document is **Rs. 2,100/- (Rupees Two Thousand and One Hundred only)** and document is available on Website [www.annamalaiuniversity.ac.in](http://www.annamalaiuniversity.ac.in)

- Registrar i/c  
Annamalai University

## **TENDER CONDITIONS**

### **1. INTRODUCTION**

**1.1.** This tender is for procurement of the following equipment for Annamalai University, Annamalainagar, Chidambaram, India.

Gel Documentation with CCD camera, Fuming cupboard, Vacuum Evaporator, Random access biochemistry Auto Analyser, Portable Bio Gas Analyser, Phytoplankton Net 64m Nitex mesh, Para monitor, sensor system with underwater camera and accessories, Blood cell counter, Water circulation systems with accessories, Labomed Trinocular Zoom stereo microscope, Lithium Battery 150AH, Solar PV panels 540 W, IGBT inverter, Storage Batteries, Heavy Duty, Storage Batteries Normal Duty, Desktop computer, Autoclave, Centrifuge, Incinerator, Arduino-ESP32sensors IoT trainer, Jumper cables (3sets), Desktop computer, Online UPS 5KVA Sensor module, Solid test sensor cum data logger NPK, pH, EC Temperature and Moisture sensor with Data logger, Methane Analyzer , CO<sub>2</sub> Analyzer, SLR Camera (DSLR D3300), Video Camera, Audio video work station, Audio recording mixing console

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The specification for the above mentioned equipment is given in **Appendix 5**.

**1.2. Applicability of Tamil Nadu Transparency in Tenders Act and Rules:**  
This tender will be governed by the Tamil Nadu Transparency in Tenders Act 1998 and Rules 2000 as amended from time to time.

### **2. ELIGIBILITY CRITERIA**

**2.1.** A tenderer will be eligible for tendering only if he satisfies the eligibility criteria as given below:

- a) A tenderer should be a manufacturer possessing a valid manufacturing license from the competent authority for manufacturing the items quoted and should have at least three years' experience. (Documentary evidence to be furnished)
- b) The manufacturer should be an ISO: 9001 / Equivalent certified company. Documentary evidence should be enclosed.
- c) Authorized Dealer / Distributor / Supplier can also bid with authorization from the Manufacturer (Documentary evidence to be furnished). A manufacturer shall not authorize more than one dealer / distributor for participating in this tender.

- d) In case a tenderer is participating as an authorized Dealer/Distributor/Supplier the manufacturer of the item should satisfy the conditions mentioned at (a) and (b) above.
- e) The tenderer should have a GST Registration. Copy of the Registration Certificate should be enclosed.
- f) Documentary evidence for Income Tax for past three years (ITR). The audited Profit & Loss Account and balance sheet for latest year to be submitted.

**2.2.** The tenderer should not have been blacklisted or debarred from participating in tenders by any Central / State Government agencies or autonomous bodies or universities/ institutions. (An undertaking to this effect should be furnished)

**2.3.** The tenderer submitting their offer must have supplied similar items to other Universities or institutions or Government agencies. Copies of such order must be enclosed with the offer.

### **3. COST OF TENDERING**

**3.1.** The Tender Document Fee is Rs. 2,100/-. The demand draft should be in favour of “**The Registrar, Annamalai University**” payable at **Annamalainagar** or **Chidambaram** and may download the application format from University Web Site.

**3.2** The Tenderer shall bear all costs associated with the preparation and submission of this Tender and the tender inviting authority will in no way be responsible or liable for these costs.

### **4. GENERAL INSTRUCTIONS**

**4.1.** The tenderers are requested to go through the instructions, terms and conditions and specifications given in the tender. Failure to furnish all required information in every aspect will be at the tenderer’s risk and may result in the rejection of the tender.

**For any queries tenderer may contact:**

**4.2.** **Registrar i/c**  
**Annamalai University Annamalainagar**  
**Chidambaram – 608 002**  
**Tamil Nadu, INDIA.**

### **Clarification on the tender**

A prospective tenderer requiring any clarification on the tender may request the Office of the Registrar, Annamalai University by a letter or by fax or by e.mail. Registrar, Annamalai University will respond in writing to any request for clarification in the tender.

#### **4.3. Amendments to the Tender**

- i. Tender Inviting Authority may amend the tender wherever it is felt that such an amendment is absolutely necessary.
- ii. Amendment to tender may also be given in response to clarifications by prospective tenderers and it is solely the discretion of the Tender Inviting Authority. Any amendment to the tender will be uploaded on the website <http://www.annamalaiuniversity.ac.in> It is the responsibility of the tenderer to verify the amendments if any and get the amendment documents before the submission of the tender provided no such change could be effected 48 hours prior to the time fixed for opening of the tender.

**4.4. The Tender document is not transferable** under any circumstances.

### **5. EARNEST MONEY DEPOSIT (EMD)**

**5.1.** The tenderer should furnish **Earnest Money Deposit (EMD) for 2% for quoted price** along with the tender by way of Demand Draft/Bankers cheque obtained from any Nationalized / Scheduled Bank and drawn in favour of “**The Registrar, Annamalai University**” payable at **Annamalainagar or Chidambaram**.

**5.2.** Any tender without required EMD will be considered as NON-RESPONSIVE and will be SUMMARILY REJECTED.

**5.3.** The Tender Inviting Authority will arrange to refund the Earnest Money Deposit to the unsuccessful tenderers after publishing the list of successful tenderers, within a reasonable time.

**5.4.** No interest will be paid on the EMD.

**5.5.** The EMD is liable to be forfeited if:

- i. The Tenderer withdraws his tender at any stage after the last date and time fixed for submitting the tender.

- ii. The Tenderer on becoming successful, fails to furnish the required security deposit or sign the agreement, within the stipulated time limit.

## **6. PERFORMANCE SECURITY :**

**i). Successful tenderer has to furnish Security Deposit equivalent to 5% of the tendered value in form of Demand Draft drawn in favour of “Registrar, Annamalai University”.**

**ii). The EMD of the Successful Bidder will be adjusted towards Security Deposit (SD). Security Deposit will be released only after the expiry of the warranty period.**

## **7. SUBMISSION OF TENDER:**

### **7.1. Due Date for Tender Submission**

- i. The tender document duly filled in, signed on all pages shall be submitted in sealed cover to **the Registrar, Annamalai University at his office up to 5.00 PM on 26.03.2024** as per the procedure laid down herein. The tender can be submitted on all working days up to the above closing date. In the event of this day being declared as a holiday, the tenders can be submitted up to 3.00 PM. on the following working day.
- ii. The tender inviting authority will not be held responsible for any delay in the receipt of the Bank Draft or any delay in the receipt of the document by the tenderer including loss of the document in transit or delay in obtaining any document / certificate or on any other account. No extension of the date and time for the submission of the documents will be given for any such delay.
- iii. The tender inviting authority may extend the due date for submission of tender by issuing an amendment in which case all the rights and obligations of the Tender Inviting Authority and the Tenderers previously subject to the original due date for submission will then be subject to the new date for submission.
- iv. **Any tender received by the Tender Inviting Authority after the due date and time will not be considered and will be returned to the tenderer.**



## 7.2. Procedure for Submission of Tender

- i. Tenderers are advised to go through the tender documents and understand all the provisions and stipulations contained therein before submitting the tender.
- ii. The tender shall be submitted as per the procedures and requirements stipulated herein.
- iii. Tender submitted by fax will not be accepted and will be summarily rejected.
- iv. The Commercial bid should be neatly typed. Handwritten offers will be rejected. Any deviation in the offer shall lead to rejection.
- v. **The tenderer who are supplying imported material, must be registered with the Competent Authority/Department of the Government of India.**
- vi. The purchaser shall not be responsible for any postal delay in receipt of the offer. Any bid received by the Purchaser which does not fulfil the required terms and conditions shall be rejected outrightly and no communication in this regard shall be sent. Delayed/Late bids will not be accepted, at any circumstances.
- vii. All the bids will be opened in the presence of bidder's representatives, who, choose to attend the same as per the date and time specified in the Tender Document.
- viii. **This tender is based on two-cover systems i.e. Technical bid and price bid.** Therefore the tender shall be submitted in two parts viz. Cover A and Cover B. Each part shall be placed in an independent sealed envelope and shall be super scribed as follows

**Cover-A : "TECHNICAL BID COVER"**

**TENDER FOR SUPPLY OF "*give equipment name and its tender serial number*" to be procured under RUSA 2.0 scheme to various Departments of Annamalai University"**

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**Cover-B : "PRICE BID COVER"**

**"TENDER FOR SUPPLY OF "*give equipment name and its tender serial number*" to be procured under RUSA 2.0 scheme to various Departments of Annamalai University"**

Tender No. AU / DRD / RUSA 2.0 / Tender – 02 / 7779 / 2024

The contents of each of the two covers shall be as described in the subsequent clauses. For all other references, these covers will be referred to briefly as “**Technical Bid Cover**” and “**Price Bid Cover**”.

**Both the covers i.e. Cover-A and Cover-B shall be placed inside an outer cover and shall be superscribed as follows:**

**TENDER FOR SUPPLY OF “*give equipment name and its tender serial number*” to be procured under RUSA 2.0 scheme to various Departments of Annamalai University”**

Tender No. AU / DRD / RUSA 2.0 / Tender – 02 / 7779 / 2024

ix. The sealed tender envelope shall be addressed to

**The Registrar i/c,  
Annamalai University,  
Annamalainagar,  
Chidambaram-608 002,  
Tamil Nadu, India**

x. The tender envelope shall carry the name and address of the Tenderer prominently with Phone No. / email ID / and FAX No.

xi. The **Technical Bid Cover (Cover-A)** shall contain the following as per the sequence indicated below.

1.	Tender Document Fee for Rs.2,100/- as per clause- 3 of the Tender Document.
2.	Earnest Money Deposit (EMD) 2% for quoted price as per clause-5 of the Tender document.
3.	Application form for supply of equipment as per Appendix-1
4.	Documentary evidence for payment of income tax for past 3 years. The Audited Profit and Loss Account and Balance Sheet for the years to be submitted
5.	Letter of Tender as per Appendix-2
6.	Documentary evidence for registration under GST.
7.	Documentary evidence for ISO:9001 / equivalent certified company of the product quoted
8.	A copy of Manufacturing license/Registration Certificate
9.	Authorization from Manufacturer in case of Authorized Dealers/Distributors/Suppliers

10.	Understanding letter for not being block listed in any Government Organizations.
11.	Documentary evidence of supplying similar items to other Universities/Institutions/Govt. agencies.
12.	In addition to the above any document or certificates etc., mentioned anywhere in the tender document shall also be a part of the technical tender requirements.

- xii. The **PRICE BID COVER (Cover-B)** shall contain the Price Bid as per the format given in Appendix-3.

The tenderer shall not carry out any alteration in the format prescribed for Price Bid. The tenderer shall not enclose any other document or statement that will influence the price. In such an event, the tender inviting authority shall summarily reject the tender.

### **7.3. Signing of the Tender**

The tender shall be signed by a person or persons duly authorized to sign on behalf of the Tenderer. All pages of the tender shall be signed by the person or persons signing the tender. The tenderer shall enclose a certified copy of the power of attorney authorizing the signatory or signatories to sign the tender document. This certification shall be from the Managing Director or the Legal Manager of the firm.

The tender shall contain no alterations or additions, except those to comply with instructions issued by the Tender Inviting Authority, or as necessary to correct errors made by the tenderer, in which case such corrections shall be signed by the person or persons signing the tender.

All the pages in the tender document should be signed by the tenderer, after filling the prices in figures & words.

## **8. GENERAL TERMS AND CONDITIONS**

### **8.1. DELIVERY SCHEDULE:**

The Price Quoted should be for CHIDAMBARAM /ANNAMALAINAGAR.

- i. Materials should be door delivered at Annamalai University, Annamalainagar, Chidambaram, Tamilnadu.
- ii. Delivery must be made within a period of 45 days from the issue the order either directly or through their dealer network unless otherwise specified.

- iii. If the supplier fails to deliver the equipment ordered within the allotted delivery period as specified above, the Purchaser may procure goods or services similar to those un-delivered upon such terms and in such manner as it deems appropriate from any other firm at the risk and cost of the supplier.

## **8.2 PAYMENT TERMS:**

- i. Payment will be made within 30 days from the date of installation, demonstration and training of personnel on the equipment and acceptance by concerned Department/ Section.
- ii. *Payment shall be made by Cheque or such other mode/* electronic fund transfer offered by the Bank.

## **8.3 Taxes & Duties :**

- i. Annamalai University, Chidambaram is registered with the Department of Scientific and Industrial Research (DSIR) for the purpose of availing Customs Duty exemption in terms of Notfn. No.51/96- Customs dt.23.07.1996, Notfn. No.28/2003-Customs dt. 01.03.2003, Notfn. No.43/2017-Customs dt.30.06.2017 & Notfn. No.47/2017- Integrated Tax (Rate) dt.14.11.2017, Notfn. No.10/2018-Integrated Tax (Rate) dt.25.01.2018 and Notfn. No.45/2017-Central Tax (Rate) dt.14.11.2017, Notfn. No.45/2017 –Union Territory Tax (Rate) dt.14.11.2017 & Notfn. No.9/2018-Central tax (Rate) dt.25.01.2018, Notfn. No.9/2018- Union Territory Tax (Rate) dt.25.01.2018.
- ii. As per Govt. of India Notification 51/96 Customs dated 23<sup>rd</sup> July 1996, Annamalai University, Chidambaram is exempted from Custom duty for all research equipment. The University shall provide all the documents under this notification to enable supplier to clear the goods without payment of Custom duty, whenever required. Supplier should state clearly that this certificate is required.
- iii. GST will be charged as applicable against DSIR Certificate. Any statutory variation will be paid to supplier on documentary evidence. Supplier should clearly indicate the percentage of GST applicable.
- iv. Clearing forwarding charges should also be mentioned.

**8.4 Loss, Damage & shortage :**

Annamalai University shall not be responsible for any loss, damages and shortage during transit. Payment shall be made for the material received in good condition only.

**8.5 Warranty**

The equipment supplied under the contract shall carry a warranty for at least Five years. Supplier shall extend free maintenance service during the warranty period.

**8.6 Commissioning and Demonstration**

The Supplier shall be responsible for commissioning of the equipment. Supplier should also arrange for demonstration of the equipment to the Staff of the University in the University campus.

**8.7 Annual Maintenance**

The University reserves the right to entrust Annual Maintenance of the equipment supplied under this tender to the concerned supplier. Therefore the tenderer shall mention the annual maintenance charges AMC/SMC in the price schedule. Tenderer should also give a brief write up about the services to be covered under Annual Maintenance charges quoted by him. Supplier should ensure that the availability/supply of spare parts and service for another five years after warranty.

**8.8 General:**

The acceptance of the offer will rest with the Annamalai University who reserves the right to reject/accept partially or wholly the tenders received, without assigning any reason.

- i. Mere submission of tender/ proposal does not imply acceptance of the same at this end and the firms will be finalised only after meeting the laid down qualifying parameters for which decision of the Tender Inviting Authority / Tender Accepting Authority shall be final and binding on the parties.
- ii. Printed terms and conditions of the applicant on their quotation Form/ Literature/ Letter etc. if any, will not be binding on the University.

**8.9 Liquidated Damages:**

Timely delivery is essence of the contract and hence should any consignment be delayed, liquidated damages at the rate 0.5% of the value of the delayed

consignment, for each week or part there of shall be levied and recovered subject to maximum of 5% of total order value.

### **8.10 Acceptance / Rejection:**

The Tender Accepting Authority reserves the right to accept a quotation in part or in full or to reject all quotations or any of the quotations received, for non-compliance of any of the above items, conditions or instructions or for any other reason without assigning any reason thereof.

### **9.1. TENDER OPENING**

- i. Tender will be opened in the presence of the tenderers or their authorized representative who choose to be present and the tender scrutiny committee at **11.00 A.M on 27.03.2024**. The representative of tenderer who attend the tender opening must produce their **identification proof** and **authorization letter** from the companies/tenderer.
- ii. In the event of the specified date of Tender opening being declared a holiday, the tenders will be opened at the same time on the next working day.
- iii. **Cover-A containing “Technical Bid” shall be opened first.**
- iv. On opening the tender, the details such as name of the tenderer, address, Tender Document Fee, EMD details, etc., will be read out.
- v. Tenders found without the Tender Document Fee and EMD or with an invalid or insufficient Tender Document Fee and EMD, will be summarily rejected. Unopened tenders will be returned to such tenderers.
- vi. On verifying the Tender Document Fee and EMD, the Technical bids will be examined to decide their service suitability for the said work. Tenderers whose Technical bids are not found acceptable will be advised of the same and their sealed covers containing the respective Financial Bids will not be opened. Their EMD will also be returned to them.
- vii. **Price bids of only those tenderers whose Technical bids are substantively responsive, will be opened.**

### **9.2. Process to be Confidential**

- i. Information relating to the examination, clarification, evaluation and

comparison of tenders and recommendations for the award of contract shall not be disclosed to tenderers or any other persons not officially concerned with such process until the award to the successful tenderer has been announced.

- ii. **Any effort by a tenderer to influence the tender accepting authority, scrutiny/evaluation committee or its members in the processing of tenders or award decisions may result in the rejection of his tender.**

### **9.3. Criteria for Technical Evaluation (Evaluation of Technical Bid)**

- i. The tender accepting authority will determine whether the tenderer has fulfilled all the tender conditions as stipulated in the tender document and whether the tender is substantially responsive or not.
- ii. A responsive tender is one which conforms to all the terms, conditions and specifications of the tender documents without material deviation or reservation. A material deviation or reservation is one:
  - a) Which affects in any substantial way the scope, quality or performance of the contract.
  - b) Which in a substantial way is inconsistent with the Tender conditions, the tender accepting authority's rights or the Tenderers obligations under the Contract, or
  - c) Whose rectification would affect unfairly the competitive position of other Tenderers presenting substantively responsive Tenders.
- iii. Tenderers who have not fulfilled the tender conditions shall be a non-responsive tender and will not be taken up for further evaluation and Price Bid opening.
- iv. To assist the examination, evaluation and comparison of Tenders, the tender accepting authority may at its discretion, ask any tenderer for clarification on his Tender. The request for clarification and the response shall be in writing or by fax but no change in the substance of the Tender shall be so sought, offered, or permitted
- v. When a tender fails to be responsive, it will be rejected by the tender accepting authority and may not subsequently be made responsive by correction or

addition / withdrawal of the non-conforming deviation or reservation.

#### **9.4. Price Bid Opening and Evaluation of Price Bid**

- i) The Tender inviting Authority will then proceed with opening of **Cover-B**, i.e., “PRICE BID COVER” of those tenderers whose technical bid has been found substantively responsive. The opening of the “**Price Bid cover**” will be done in the presence of those tenderers or their representatives who choose to be present. The Tender Inviting Authority will inform such tenderers in advance about the acceptance of their technical tender and the date and time of opening of the “Price Bid Cover”.
- ii) The tender will be evaluated based on the prices offered by the tenders for the concerned equipment.
- iii) The tender who has bid the lowest evaluated price will be determined considering the following factors:-
  - a) the quoted price shall be corrected for arithmetical errors;
  - b) in cases of discrepancy between the prices quoted in words and in figures, lower of the two shall be considered
- iv) The evaluation shall include all central duties such as customs duty (for the imported items), central excise duty and GST, as a part of the price, as detailed below:-
  - a) In evaluation of the price of an imported item, the price has to be determined inclusive of the customs duty;
  - b) In evaluation of the price of articles which are subject to excise duty, the price has to be determined inclusive of such excise duty.
- v) Annual Maintenance charges will not be included while evaluating the tender.

#### **10. AWARD OF TENDER**

**10.1.** The award of the tender shall be made strictly in accordance with the “Tamil Nadu Transparency in Tenders Act 1998 and Rules 2000 and no deviation will be made.



**10.2.** Notwithstanding anything that is said herein, the Tender Accepting Authority reserves the right to accept or reject any tender or all tenders, and to cancel the tendering process and reject all tenders, at any time prior to the award of tender, without thereby incurring any liability to the affected tenderer or tenderers or any obligation to inform the affected tenderer or tenderers on the grounds for the tender accepting authority's action.

## **11. NOTIFICATION OF AWARD**

**11.1** The tenderer whose tender has been accepted will be notified by the Tender Accepting Authority, in writing.

**11.2.** Upon furnishing the security deposit by the successful tenderer or tenderers and upon signing the Agreement (Appendix-4), the EMD will be returned to the unsuccessful tenderer within a reasonable time period.

## **12. DISPUTES AND JURISDICTION:**

Any legal disputes arising out of any breach of contract pertaining to this tender process shall be settled in the court of competent jurisdiction located within the **town of Chidambaram** in Tamil Nadu.

## **13. ACKNOWLEDGEMENT:**

**It is hereby acknowledged that we have gone through all the conditions mentioned above and we agree to abide by them.**

**APPLICATION FORM FOR SUPPLY OF EQUIPMENT**

1. NAME OF THE EQUIPMENT:
2. TENDER NUMBER:

<b>S.NO.</b>	<b>VENDOR DETAILS</b>	
1	Name and Address of the Manufacturer/Firm/Vendor	
	Phone Number	
	Fax	
	E-Mail	
	Contact Person Name	
	Mobile Number	
2	Name and Address of the Local Authorized Dealer/Distributors/ Supplier	
	Phone Number	
	FAX	
	E-Mail	
	Contact Person Name	
	Mobile Number	
3	GST No. of the Firm/Dealer (copy to be enclosed)	
4	PAN No. of the Dealer (Copy to be attached)	
5	EMD (DD No., Date & Amount and issuing Bank)	
6	Name of the University/ Government Institutes/R&D organizations who have purchased similar equipment from your concern (attach copies)	

**7. Declaration by the tenderer.**

- i.) We hereby declare that all the particulars given in this application are true and complete to the best of our knowledge and belief and we will produce all the relevant documents promptly, if necessary or as and when asked for by Annamalai University, Chidambaram. We understand that information provided by us will serve as Prequalification Criteria for supply of equipment under this tender and in the event of any information being found false or incorrect or ineligibility being detected even after the award of Contract, Our contract may be cancelled and all our claims may be forfeited by the Annamalai University, Annamalainagar. We have read and understood all the terms and conditions of the tender and we fully agree to it.
- ii.) We also declare that we will not sell our products at a lesser price to other parties than those supplied to Annamalai University and in the event of happening of such situation, we will be bound to refund the difference and our contract may also be cancelled at the discretion of Annamalai University.
- iii.) We also undertake that all the terms such as Product Range, Price, Discount, Delivery/other charges, Terms of Payment and also the name/s of the Dealer/ Distributor will remain unchanged during the contract period and no alteration will be done without the approval of Annamalai University.

Date :

Signature :

Place :

Name :

Designation :

Seal of the firm :

**TENDER FOR SUPPLY OF TO BE PROCURED UNDER RUSA 2.0 SCHEME  
IN ANNAMALAI UNIVERSITY**

**LETTER OF TENDER**

To

The Registrar i/c,  
Annamalai University,  
Annamalai Nagar,  
Chidambaram – 608 002.

Sir,

Sub: Tender for Supply of Lab equipments to be procured under RUSA 2.0 scheme  
in Annamalai University.

\*\*\*\*\*

1) I / We, the undersigned do hereby tender and undertake to Supply of \_\_\_\_\_ equipment to Annamalai University in strict accordance with and subject to the terms and conditions set forth or mentioned in the Tender documents and appendices.

2) I / We have gone through the instructions in the tender and carefully read all the conditions of tender and agree to abide by all the conditions mentioned there in.

3) I / We hereby state that I/we have remitted \_\_\_\_\_ (Rupees ... .. only) in the form of Demand Draft/Bankers Cheque No. \_\_\_\_\_ Dated : \_\_\_\_\_ drawn on \_\_\_\_\_ Bank \_\_\_\_\_ Branch, in favour of the Registrar, Annamalai University as Earnest Money Deposit and agree to have it forfeited to the Annamalai University in case of my / our failure to supply the equipment.

4) I / We hereby certify that the price offered is final and I / We will not come forward for any revision or alteration in rates quoted subsequently due to hike in prices or any other reasons. However I/we are aware of the university's right to negotiate the discount rate while evaluating the tender.

5) I / We confirm that our Tender is in conformity with the technical specifications and commercial terms & conditions as stipulated in the Tender Document and without any deviations whatsoever. I am / We are aware that our Tender is liable for disqualification in the event of technical and commercial deviations observed by the Tender Accepting Authority at a later date during the process of evaluation of our Tender.

6) I / We further declare that the information and documents furnished in the Tender submitted by us are correct and genuine. I am / we are aware of the Tender Inviting Authority's right to forfeit the Earnest Money Deposit and / or Security Deposit and blacklisting me / us if, any information furnished by us proved to be false at the time of inspection and not complying with the tender conditions.

7) I / We state that I / We have not been blacklisted or debarred from participating in tenders by any Central / State Government agencies or autonomous bodies or universities / institutions.

8) In the event of my / our tender becoming successful, I / We undertake and agree to forward to the Registrar, Annamalai University in ten (10) days, after the notification of the acceptance of this tender has been received by us.

9) We undertake and agree that we will not withdraw this Tender during the period that will be required for intimation of acceptance or non-acceptance as stipulated in clause 10 of the Tender document. If I / we do so withdraw, I / we shall forfeit the Earnest Money Deposit to Annamalai University. I / We agree to execute at our cost the Agreement in ten (10) days after the notification of the acceptance of our Tender has been received by us.

In the event of our failing to make the Security Deposit or to execute the Agreement in the said manner, the Earnest Money Deposit accompanying this Tender shall be forfeited to the Annamalai University and this concluded Contract shall in such case be considered as having been cancelled or terminated and I / we agree to be liable, irrespective of the forfeiture aforesaid for all damages, losses, costs, charges and expenses arising from or by reason of such failure and arrangements.

As witness our hand this.....day of.....of 2024.

Signature of the Tenderer :

Name & Address :

Company Seal :

**PRICE BID FOR SUPPLY LAB EQUIPMENTS TO BE PROCURED UNDER  
RUSA 2.0 SCHEMES IN ANNAMALAI UNIVERSITY**

SL.No	Description	Specification	Quantity	Rate	Total Cost
.					

1	Price (Both in figure and words) in Rs.	
2	GST	%
		Amount in Rs.
Total Amount in Rs.		

**Important Note:**

1. The price quoted above shall be inclusive of all taxes and charge except GST.
2. GST shall be mentioned separately. If not, the price bid will not be considered.
3. FOR: Destination as given in the purchase order.
4. Warranty period for the above items must be 5 years from the date of installation.
5. The purchased equipment should be installed as per requirement.
6. Annual Maintenance Charges (after expiry of warranty period).
7. The above mentioned equipment and accessories are to be installed as per enclosed in the tender document.
8. Training must be provided to the faculty members for using the equipments and software, for six days after the successful installation of the equipment in two spells (3 days + 3 days).
9. Payment Terms:
10. Payment will be made within 30 days from the date of installation, demonstration and training of personnel on the equipment and acceptance by concerned Department/ Section.

**Other Information to be provided:**

1.	Warranty period in years
2.	Annual maintenance charges (applicable after expiry of warranty period)
3.	After First expiry year of the warranty
4.	After second year of the warranty
5.	After third year of the warranty
6.	After fourth year of the warranty
7.	After fifth year of the warranty

Signature :

Name :

Designation :

Seal of the firm :

**Appendix – 4****CONTRACT AGREEMENT**

THIS AGREEMENT made on the ..... day of ..... 2024 between The Registrar, Annamalai University, Annamalainagar, Chidambaram – 608 002. (Herein after “the Purchaser”) of the one part and ..... (Name of Supplier) of ..... (Address of the Supplier) (herein after called “the Supplier) of the other part:

WHEREAS the Purchaser is desirous of procuring \_\_\_\_\_ equipment as per the tender reference No..... and has accepted a bid by the Supplier for the above said equipment price offered by the Supplier is `.....(Rupees in words ..... )

**NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:**

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Tender referred to, and they shall be deemed to form and be read and construed as part of this agreement.
2. The following documents shall be deemed to form, be read and construed as part of this Agreement, viz;
  - a) The letter of Acceptance issued by the purchaser.
  - b) The Notice Inviting Tender.
  - c) The supplier’s bid including enclosures, appendixes, documents, Price Catalogue etc.
  - d) The Tender Document including various Terms and Conditions.
  - e) Any other document listed in the Tender document.
1. Payments will be made within 30 days from the date of installation, demonstration and training of personnel on the equipment and acceptance by concerned Department/ Section.
2. The warranty period is Five years.
5. The AMC/SMC for the subsequent year after the warranty period will be as follows.



After First expiry year of the warranty	
After second year of the warranty	
After third year of the warranty	
After fourth year of the warranty	
After fifth year of the warranty	

IN WITNESS whereof the parties here to have caused this Agreement to be executed in accordance with their respective laws the day and year first above written.

Signed, Sealed and Delivered by the Said ..... (For the Supplier) in the presence of .....

Signature

Name & Address

Signed, Sealed and Delivered by the Said ..... (For the Purchaser) in the presence of .....

Signature

Name Address

## TECHNICAL SPECIFICATION FOR THE LABORATORY EQUIPMENTS

### **S. No. 1: Gel documentation with CCD Camera**

#### **Gel documentation System with Accessories**

1. System with true 16 bit CCD (not A/D) camera; pixel density of 65,536 gray levels.
2. Individual pixel size should be at least 4.54 x 4.54  $\mu\text{m}$  or bigger.
3. Camera resolution should be more than 6 megapixel.
4. The instrument should provide excellent quantitative data from a single blot having very intense and weak signals in a single image; to facilitate the same instrument's dynamic range should be at least 4 orders of magnitude for all applications (please support with relevant technical data)
5. Instrument should provide highest level for sensitivity and hence must have minimal dark current with maximum limit of 0.002 e/p/s and low read noise of not more than 6e-.
6. The camera should have peltier based cooling.
7. Quantum efficiency at 425 nm should be 70% or more, this will ensure that the instrument is highly sensitive to very faint signals from chemiluminiscent blots.
8. Motorized zoom fast lens with f/0.95 or better should be provided.
9. Light sources/excitation should include – Trans-UV (302 nm), Epi White and it should have upgradable option for Epi-Blue Multiplexed LED (460-490 nm), Epi-Green Multiplexed LED (520-545 nm), Epi-Red Multiplexed LED (625-650 nm), Epi-far red Multiplexed LED (650-675 nm), Epi-near IR Multiplexed LED (755-777 nm) and trans-blue light (Blue tray (for Gel green and any SYBR stains).
10. Instrument should have provision for protective UV shield for use during band excision with safety interlocks to avoid un-intentional UV exposure to the user.
11. Minimum imaging area for white light and chemiluminescence application should be 21 cm x 16.5 cm.
12. Should provide image acquisition with automatic zoom, focus, and iris adjustment without the need for users to focus or adjust aperture settings.
13. The instrument should have onboard attached touchscreen of 12" or bigger with multi-touch capability (2 points) enabling users to easily interact with the touchscreen to acquire, assess and export images. Touchscreen actions should include – tap, double tap, pan, scroll and pinch to zoom.
14. Instrument should have multiple input/output ports with minimum 3 USB ports allowing users to connect USB devices (like keyboard, mouse, data storage, and printer). One USB port should be provided on the front panel for easy export to USB. Also, system should have one Ethernet port so that users can transfer image files via Ethernet to networked computers.
15. Factory calibrated flat fielding for ensuring uniform data for all applications. System should be calibrated for image area, focus, and flat field correction at the factory and files stored in the integrated PC.
16. Users should be able lock the system to prevent other users from interrupting a long acquisition or changing the settings.
17. System should be enabled with stain-free imaging of gels and blots.
18. The system should have a fixed sample stage.
19. The system should provide flexibility in selecting the pixel binning options, should be possible to select minimally 2x2, 4x4 and 8x8 binning.

#### **System Software-**

1. Software should have highest level of automation in hardware calibration, image optimization, capture, and analysis.
2. Should have automated workflow recorded in a protocol file from image capture to results thus eliminating need for training.

3. Should allow 100% repeatability of the workflow by any user and ensures optimized image data and analysis from a gel in a single uninterrupted, fast, and completely reproducible workflow.
4. Should have automated image capture driven by a selected gel or blot application.
5. Software should have automated normalization feature for normalizing western blot signals of target band with either a housekeeping protein band or total protein load of a sample.
6. Should generate publication ready images with user defined dpi, dimension and format with one click export option thus eliminating the need of using other software like Photoshop.
7. Should generate customizable reports.
8. Should have feature for Automatic print when only imaging and printing is required.
9. Software should have easy copy/paste functionality, crop, zoom, 3D and colors.
10. Signal Accumulation Mode (SAM) for easy optimization of exposure time for chemiluminescent detection.
11. Software should be both PC and Mac compatible.
12. Software should be provided for minimum 20 users with license for complete acquisition and analysis features.
13. Software should be able to export images on a 16-bit and 8-bit tiff images with a one-click export option.
14. Software should be able to export images in multiple formats with minimum options of exporting in .tiff, .png, .jpg and .bmp
15. Software should have unlimited undo and redo functions to easily correct for any missteps with additional features like easy copy/paste, crop, zoom, 3D viewer and colors.
16. Should be single software for acquisition and analysis.
17. The software provided should have minimum 10 citations in peer-reviewed international journals for use in western blot normalization using stain-free technology/method. Please attach the publications in technical bid highlighting the same.
18. Automated image capture optimized for each selected gel or blot application - Software should automatically select the appropriate filters, light sources, and camera settings for all applications. The software should ensure that image optimization is specific to a selected gel or blot application or can be used for a large portfolio of detection methods. Applications include chemiluminescent, colorimetric, and fluorescent blots, and nucleic acid and protein detection via colorimetric and fluorescent stains.
19. Warranty should be 3 years for the instrument.
20. Should include Desktop PC with i7 processor, 8 GB RAM, 512 SSD.

**Delivery at place:** The items should be delivered free at Department of Pharmacy, Annamalai University, Chidambaram. Customs duty, clearance charges, freight and other charges to be borne by the supplier. University will provide the necessary Duty Exemption Certificates as well as GST Exemption certificates (as applicable).

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**S. No. 2: Fuming cupboard**

Model No.	Dimension (ft)	Dimension
IG-422FH	5 L x 2.5 W x 4 H feet	4 L x 2 W x 3 H feet
Inner chamber	SS 304 / 316/ FRP Coating; for non – air conditioner laboratory	
Exterior	Power coated MS / Stainless Steel / GI	
Work top	SS 304 / Jet black granite	
Illumination	Fluorescent tube light	
Blower	Centrifugal exhaust blower (direct drive motor)	
Noise level	55 db	
Standard fittings	<ul style="list-style-type: none"> <li>• Water tap</li> <li>• Sink with drainage system</li> <li>• Electrical sockets</li> </ul>	
Optional	<ul style="list-style-type: none"> <li>• FRP coating on inner walls</li> <li>• Air foil</li> <li>• Scrubber system</li> <li>• Storage cabinet</li> <li>• Caster wheels w/ brake</li> <li>• Wet &amp; dry service valves</li> <li>• Certification (ASHRAE110- 1995 / EN-14175- 2003)</li> <li>• Air Flow Monitor</li> <li>• Temperature indicator</li> <li>• IQ/OQ/PQ</li> </ul>	

**Delivery at place:** The items should be delivered free at Department of Chemistry, Annamalai University, Chidambaram. Customs duty, clearance charges, freight and other charges to be borne by the supplier. University will provide the necessary Duty Exemption Certificates as well as GST Exemption certificates (as applicable).

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**Serial No. 3 Vacuum Evaporator**

LCD with Colour Graphic Display Rotary Evaporator, Capacity 4 liter,

Display size 3 inch

Display type LCD with Colour Graphic Display

Control Accuracy +/- 1 degree celsius (water)

Heating Bath material SS Heater

Heating Bath Capacity 4 liter

Timer Yes

Cooling Surface, cm 21500

Vacuum Controller Integrated Yes

Heating Bath Controller Digital

Lift motor

Rotation Speed, rpm 20-280

Vapour Display

Accessories Vertical Glassware

Features Built-in vacuum controller

Warranty 1 year

**Power Supply Voltage, Volt:** 200-240

Frequency: 50 Hertz

**Accessories:** Vertical Glassware

**Weight:** 50 kilogram

Height: 430 millimeter

Depth 440 millimeter

Width 500 millimeter

**Delivery at place:** The items should be delivered free at CAS in Marine Biology, Annamalai University, Chidambaram. Customs duty, clearance charges, freight and other charges to be borne by the supplier. University will provide the necessary Duty Exemption Certificates as well as GST Exemption certificates (as applicable).

## S. NO. 4: RANDOM ACCESS BIOCHEMISTRY AUTO ANALYZER

Fully Automated Random Access Clinical Chemistry Analyzer with a throughput of 200 tests / hr (photometric test) and 400 tests/hr with ISE (Na/K/Cl/Li). 30 Position Reagent Tray with On-board cooling, convenient software and extensive quality control menu.

### DISPENSING OF SAMPLES AND REAGENTS

- Sample volume: 2-70  $\mu\text{l}$  (in 0,2  $\mu\text{l}$  step)
- Reagent volume: R1 50-300  $\mu\text{l}$  (in 1  $\mu\text{l}$  step), R2 10-200  $\mu\text{l}$  (in 1  $\mu\text{l}$  step)
- Dispensing probe equipped with liquid -level sensor and crash detector
- Auto-dilution of samples and calibrators

### ECONOMY

- Minimum reaction volume: 180  $\mu\text{l}$
- Reusable reaction cuvettes

### MIXING SYSTEM

- Independent stirrers
- 3 user selectable mixing speeds

### QUALITY CONTROL

- 4 levels of control material can be used
- Levey-Jennings graphs
- Twin Plot diagrams for monitoring of systematic and random error

### REACTION UNIT

- 45 reusable hard glass cuvettes
- Possibility of replacement of individual cuvette
- Wash station – cuvette rinsing and drying in 8 steps
- Automatic cuvette blank measurement before analysis
- Reaction temperature  $37^{\circ}\text{C} \pm 0,2^{\circ}\text{C}$

### SAMPLE TRAY

- 39 positions for samples, blanks, standards, calibrators, controls and ISE solutions
- Primary tubes 5, 7 and 10 ml, vacuum system tubes and cups
- STAT sample with priority in any position
- Possibility of programming up to 99 virtual trays

### REAGENT TRAY

- 50 positions, 20 ml, 50 ml reagent containers, 5 ml tube with adaptor)
- Reagent compartment with Peltier/air cooler ( $8-12^{\circ}\text{C}$ )
- Option to use one reagent for several tests simultaneously

### SOFTWARE

- Convenient user interface
- Connection to LIS
- Statistical methods of processing results

### MEASUREMENT MONITORING

- Color indication of sample analysis
- Possibility of monitoring the reaction in real time
- Reagent volume monitoring
- Informative reports on ongoing analyzer status

**Delivery at place:** The items should be delivered free at CAS, Marine Biology, Annamalai University, Chidambaram. Customs duty, clearance charges, freight and other charges to be borne by the supplier. University will provide the necessary Duty Exemption Certificates as well as GST Exemption certificates (as applicable).

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**S. NO. 5: PORTABLE BIOGAS ANALYZER****Portable Biogas Analyser****Technical Specifications:**

1. Detection Method: Suction/pressurized, depending on the application, ensuring flexibility in various scenarios.
2. Display: LCD with settable backlight for optimal visibility in different lighting conditions.
3. Set Point: Two independent set points (AL1 & AL2) with LED indication for effective monitoring and alerting.
4. Warm-up Time: Quick warm-up time of less than 60 seconds for swift and efficient gas analysis.
5. Battery Charger: Input: 100-240V AC, 50-60 Hz; Output: 5V, 500mA Max, providing versatile charging options.
6. Output Signal: Downloadable data with 100,000 records logging capacity in ASCII format, ensuring comprehensive data analysis.
7. Environmental Tolerance: Operating temperature of 0 to 50°C, storage temperature of 0 to 60°C, and humidity tolerance below 95% RH (non-condensing) for reliable performance in diverse environments.
8. Enclosure Details: Compact external dimensions of 174 mm (H) x 406 mm (W) x 330 mm (D) with a maximum weight of 5 kg, ensuring portability and easy integration into different settings.
9. Free Accessories: Includes an operating manual, battery charger, gas sensing probe, and a Teflon gas sampling hose for added convenience.

**Delivery at place:** The items should be delivered free at, Annamalai University, Chidambaram. Customs duty, clearance charges, freight and other charges to be borne by the supplier. University will provide the necessary Duty Exemption Certificates as well as GST Exemption certificates (as applicable).

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**S. NO. 6: PHYTOPLANKTON NET 64M NITEX MESH****Technical Specifications:**

<b>S. No</b>	<b>Description</b>
1.	Phytoplankton Net 64 $\mu$ m Nitex Mesh <ul style="list-style-type: none"> <li>➤ Single net ring with frame (Marine-grade stainless steel)</li> <li>➤ 10 mm thickness</li> <li>➤ 500 mm diameter</li> <li>➤ Seam tape and thread. Double –stitched long service under severe seagoing conditions</li> <li>➤ Eyelid for tying and towing polypropylene rope</li> <li>➤ 64 <math>\mu</math>m Nitex Mesh with conical in shape 1.8 mts length (Phyto)</li> <li>➤ The top and bottom portions are to be made up of strong canvas cloth</li> <li>➤ Polypropylene rope running on the three or four corners of the net as additional support to the net.</li> <li>➤ Easy installation by a two point connections of the flow meter</li> </ul>
2.	Collection Bucket <ul style="list-style-type: none"> <li>➤ 80 mm inner dia</li> <li>➤ 200 mm height</li> <li>➤ Removable type (with U camp)</li> <li>➤ Net with a single window, slightly offset, so easily pour out the content</li> <li>➤ Window covered by 64 <math>\mu</math>m mesh size of the bottom and protected by stainless steel net at outer side.</li> </ul>

**Delivery at place:** The items should be delivered free at CAS in Marine Biology, Annamalai University, Chidambaram. Customs duty, clearance charges, freight and other charges to be borne by the supplier. University will provide the necessary Duty Exemption Certificates as well as GST Exemption certificates (as applicable).

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**SERIAL NO. 7 UNDER WATER CAMERA**

<b>Proposed equipment/s</b>	<b>Specifications</b>	<b>No of units</b>
Portable 9 inch LCD Monitor Fish Finder HD 1000TVL Fishing Camera Waterproof Underwater DVR Video Cam 30m Cable 12pcs IR Infrared LED for Ice,Lake and Boat Fishing	<p>9" LARGER COLOR MONITOR】 : The Image display more realistic and delicate, 9 inch TFT color monitor with removable sun-visor ideal for bright environments</p> <p>●1000TVL CAMERA with 12pcs INFRARED LEDS】 : Specially manufactured 1000TVL program chip and 12pcs IR LED Lights, fishes will be seen more clearly in the dark environment. Please note: the image will turn to black and white if you open the infrared light.</p> <p>DVR RECORDING FUNCTION: 8GB TF card included, you can record the underwater landscapes as your want.</p> <p>SPECIAL FISH SHAPE AND SILVER COLOR DESIGN】 : This unique design will not disturb the fish, it can Lure the fish close to.</p> <p>6-8H WORKING TIME】 : 4500mAh high capacity rechargeable battery cell box included, It can also be used for LED Lights control.</p>	1

**Delivery at place:** The items should be delivered free at CAS in Marine Biology, Annamalai University, Chidambaram. Customs duty, clearance charges, freight and other charges to be borne by the supplier. University will provide the necessary Duty Exemption Certificates as well as GST Exemption certificates (as applicable).

**S. No. 8: Blood Cell Counter****Hematology Analyser**

Throughput equal to or more than 60 samples/hour with whole blood samples.  
3 - Colour LCD display of text and histogram

**Weight** 49 lbs/22 Kg

**Dimensions** 19 x 16 x 19 in / 48 x 40 x 48 cm (HxWxD)

**Throughput** 60 tests/hour

**Parameters (37)** WBC, NEU# & NEU%, LYM# & LYM%, MON# & MON%, EOS# & EOS%, BAS# & BAS %, LIC# & LIC%, IML#, IML%, IMM#, IMM%, IMG#, IMG%, ALY#, ALY%, RBC, MIC%, MAC%, HGB, HCT, MCV, MCH, MCHC, RDW-CV, RDW-SD, PLT, MPV, PCT, PDW, P-LCC, P-LCR

**Operating sample mode** Open Tube (OT), Closed Tube (CT)

**Technical Specifications:**

**Delivery at place:** The items should be delivered free at CAS in Marine Biology, Annamalai University, Chidambaram. Customs duty, clearance charges, freight and other charges to be borne by the supplier. University will provide the necessary Duty Exemption Certificates as well as GST Exemption certificates (as applicable).

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## SERIAL NO 9. WATER CIRCULATION SYSTEM

- 17-50ml – Mini Silicone Tube Liquid Peristaltic Pump
- Operating Voltage (VDC) 12~24
- Flow Rate (ml/min) 17-50
- Noise Level (dB) <40
- Operating Temperature (°C) 0 to 40
- Length (mm) 100
- Width (mm) 65
- Height (mm) 62.5
- Weight (gm) 185
- Shipment Weight 0.2 kg
- Shipment Dimensions 11 × 7 × 7 cm

**Delivery at place:** The items should be delivered free at CAS in Marine Biology, Annamalai University, Chidambaram. Customs duty, clearance charges, freight and other charges to be borne by the supplier. University will provide the necessary Duty Exemption Certificates as well as GST Exemption certificates (as applicable).

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## S. NO. 10: TRINOCULAR ZOOM STEREO MICROSCOPE

### Technical Specifications

**Trinocular Zoom Stereo Microscope with Infinity Parallel Optical System and LED Illumination** are of great value in a variety of applications such as Industrial, Medical and Scientific Research Areas, circuit board repair, circuit board inspection, surface mount technology work, electronics inspection, coin collecting, gemology and gemstone setting, engraving, and repair and inspection of small parts.

<b>Optical System</b>	Infinity Parallel Zoom Optical System
<b>Drawing Tube</b>	Binocular Head, 20°Inclination
<b>Eyepiece</b>	EW10×/Φ22 with diopter adjustment
<b>Zoom Objective</b>	0.8×-6.4×
<b>Objective</b>	Plan Achromatic Objective 1×
<b>Zoom Ratio</b>	1: 8
<b>Working Distance</b>	78mm
<b>Focusing</b>	Focusing Range 105mm
<b>Stage</b>	Temperature controlled stage and power supply (optional)
<b>Illumination</b>	Transmission & Reflection LED Illumination, Brightness Adjustable

**Delivery at place:** The items should be delivered free at CAS in Marine Biology, Annamalai University, Chidambaram. Customs duty, clearance charges, freight and other charges to be borne by the supplier. University will provide the necessary Duty Exemption Certificates as well as GST Exemption certificates (as applicable).

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## S. NO. 11: LITHIUM BATTERY 150AH

### Technical Specifications

#### CURRENT Tall Tubular Battery

Product Dimensions (LxWxH) (mm)	500 X 188 X 397
Voltage (V)	12
Capacity @ C20 (AH)	150
Backup Duration (min)	270
Technology	Tubular - Flooded
Type	Tall Tubular
Perf @ C20	150
Perf @ C10	135
Perf @ C5	120
Perf @ C4	113
Perf @ C3	105
Perf @ C2	98
Perf @ C1	75
Dis. Multi factor (%)	90
Total Warranty (Months)	54
Free Warranty (Months)	36
Pro-rata Warranty (Months)	18
Terminal Layout	
Country Origin	India

**Delivery at place:** The items should be delivered free at Department of Computer Science, Annamalai University, Chidambaram. Customs duty, clearance charges, freight and other

charges to be borne by the supplier. University will provide the necessary Duty Exemption Certificates as well as GST Exemption certificates (as applicable).

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**S. NO. 12: SOLAR PV PANEL 540 W**

**Technical Specifications**

<b>Name of the Equipment</b>	<b>Detailed Specifications</b>	<b>Quantity</b>
Solar PV panels (540 W)	Mono type Maximum Power : 540 W Voltage range per cell: 0.47-0.501 V Voltage range of the Panel: 28.5-32.04 V Max Current delivery: 33.25 A	10 nos

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**S. NO. 13: IGBT INVERTER**

**Technical Specifications**

<b>Name of the Equipment</b>	<b>Detailed Specifications</b>	<b>Quantity</b>
IGBT Inverter	Charging Current : 23.25 A DC to AC phase conversion AC Frequency Range: 48.2 - 52.5 Hz AC Current rating: 16.8 A DC Current rating: 20.05 A Short-term Overload DC Current: 24.67 A PWM Switching Frequency: 1.2 MHz	2 nos

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**S. NO. 14: STORAGE BATTERIES HEAVY DUTY**

**Technical Specifications**

<b>Name of the Equipment</b>	<b>Detailed Specifications</b>	<b>Quantity</b>
Storage Batteries	Heavy Duty 1800 W Operating Voltage: 9.5-12.2 V Normal Current delivery: 55 A Surge Current: 150 A Maximum duration for surge current: 6.5 minutes Duration for Full Charge: 4 hrs	10 nos

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**S. NO. 15: STORAGE BATTERIES NORMAL DUTY****Technical Specifications**

<b>Name of the Equipment</b>	<b>Detailed Specifications</b>	<b>Quantity</b>
Storage Batteries	Normal Duty 504 W Operating Voltage: 9.5-12.2 V Normal Current delivery: 20 A Surge Current: 50.57 A Maximum duration for surge current: 6.5 minutes Duration for Full Charge: 4 hrs	10 nos

**Delivery at place:** The items should be delivered free at Department of Electrical Engineering, Annamalai University, Chidambaram. Customs duty, clearance charges, freight and other charges to be borne by the supplier. University will provide the necessary Duty Exemption Certificates as well as GST Exemption certificates (as applicable).

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**S. NO. 16: DESKTOP COMPUTER**

<b>Name of the Equipment</b>	<b>Detailed Specifications</b>	<b>Quantity</b>
Desktop Computer	DELL Make Intel Core i5 12 <sup>th</sup> Gen Processor, 8GB DDR4, 512GB SSD, Wired Keyboard & Mouse, Win 11 Home, MS Office 2021, No ODD with 21.5" Monitor.	4 nos

**Delivery at place:** The items should be delivered free at Annamalai University, Chidambaram. Customs duty, clearance charges, freight and other charges to be borne by the supplier. University will provide the necessary Duty Exemption Certificates as well as GST Exemption certificates (as applicable).

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**S. NO. 17: AUTOCLAVE****Technical specifications**

<b>S.No</b>	<b>Item</b>	<b>Specification</b>
3	Autoclave	Sterilized chamber capacity – 80-100 liters Type – Vertical Pressure – 18.5 pounds per square inch Door sealing: neoprene rubber gasket

**Delivery at place:** The items should be delivered free at Department of Microbiology, Annamalai University, Chidambaram. Customs duty, clearance charges, freight and other charges to be borne by the supplier. University will provide the necessary Duty Exemption Certificates as well as GST Exemption certificates (as applicable).

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**S. NO. 18: CENTRIFUGE****Technical specifications**

<b>S.No</b>	<b>Item</b>	<b>Specification</b>
1	Centrifuge	bench top Non refrigerated centrifuge Type of motor- with carbon brushless RPM- 13000 (8x 15 ml) angle rotor

**Delivery at place:** The items should be delivered free at Department of Microbiology, Annamalai University, Chidambaram. Customs duty, clearance charges, freight and other charges to be borne by the supplier. University will provide the necessary Duty Exemption Certificates as well as GST Exemption certificates (as applicable).

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**S. NO. 19: INCINERATOR****Technical specifications**

<b>S.No</b>	<b>Item</b>	<b>Specification</b>
4	Incinerator	Number of memory sticks -1 Item weight – 14 kg Product dimension- 30 x 235x 41cm Item height – 41 cm Width – 23.5cms

**Delivery at place:** The items should be delivered free at Department of Microbiology, Annamalai University, Chidambaram. Customs duty, clearance charges, freight and other charges to be borne by the supplier. University will provide the necessary Duty Exemption Certificates as well as GST Exemption certificates (as applicable).

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**S. NO. 20: SENSORS AND IoT TRAINER WITH ACCESSORIES****Technical specifications**

<b>S. No</b>	<b>Specification</b>
1.	<b>ESP 32- Sensors IoT Trainer</b>
2.	<b>Sensors Modules for all the wireless node</b> <b>Basic Sensors Module</b> <ul style="list-style-type: none"> <li>i) Force Sensor -1 No</li> <li>ii) Temperature Sensor- 5Nos</li> <li>iii) Magnetic Sensor - 1 No</li> <li>iv) Vibration Sensor - 1 No</li> <li>v) Humidity Sensor - 1 No</li> <li>vi) RH &amp; amp: Temperature Sensor- 1 No</li> <li>vii) Light Sensor – 5 Nos</li> <li>viii) 3Axis Accelerometer – 1 No</li> <li>ix) Smoke Sensor – 5 Nos</li> <li>x) Motion Sensor - 1 No</li> <li>xi) Tilt Sensor – 1 NO</li> <li>xii) Ultrasonic Sensor - 1 No</li> <li>xiii) Pressure Sensor – 1 NO</li> <li>xiv) Speed Sensor (MOC7811)- 5 Nos</li> <li>xv) Touch Sensor - 1 No</li> <li>xvi) IR Sensor – 5 Nos</li> </ul>
3.	<b>Jumper cables (3 Sets)</b> Male to Female (40 Pieces) Male to Male (40 pieces) Female to Female (40 Pieces)
4.	<b>System Configuration</b> Intel Core i7 12700 / 12 Core / Intel Q670 Chipset Board / 2GB 550 / 16 GB @ 3200 MHz DDR4 RAM / 256 GB SSD / 1000 GB @ 7200 rpm HDD/ 10/100/1000 on board Integrated Gigabit Port / Wi-Fi 802.11ac / Bluetooth 5.1/ Windows 10 Professional / 23.8" IPS LED Backlit Monitor (1920x1080 Resolution) /Key board & Mouse/ Internal Speaker
5.	<b>UPS Configuration</b> UPS. KVA imaxx (1ph-1ph)l / 5.0 KVA With Battery Of Backup Time 30 Minutes / Isolation Transformer / AC Single Phase —AC Sin e Phase / Rack for Batteries

**Delivery at place:** The items should be delivered free at Department of Information Technology, Annamalai University, Chidambaram. Customs duty, clearance charges, freight and other charges to be borne by the supplier. University will provide the necessary Duty Exemption Certificates as well as GST Exemption certificates (as applicable).

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**S. NO. 21 SOLID TEST SENSOR CUM DATA LOGGER NPK:****Technical specifications**

Sl. No.	Name of the items	Specifications
1.	pH, EC, Temperature And Moisture Sensor With Data Logger	<p><b>Standard Interface:</b> WatchDog station, FieldScout soil moisture reader</p> <p><b>Range:</b> VWC: 0% VWC to saturation, EC: 0 to 10 mS/cm, Temp: 33 - 175°F (0.5 - 80°C)</p> <p><b>Resolution:</b> VWC: 0.1%, EC: 0.01 mS/cm, Temp: 0.1°F (0.1°C)</p> <p><b>Accuracy:</b> VWC: 3%, EC: ± 2%, Temp: ± 1.4°F (0.8°C)</p> <p><b>Cable Length:</b> 6 ft (1.8 m) and 20 ft (6 m) standard, extendable up to 50 ft (15 m)</p> <p><b>Power Requirements:</b> 3V @ 6 to 10 mA</p> <p><b>Output:</b> Analog voltage, time division multiplexed</p> <p><b>Sensing Area:</b> 2.25 in. x 0.75 in.</p>
2.	Soil Test Sensor Cum Data Logger NPK	<p><b>Measure range:</b> 0.001-9999</p> <p><b>Stability:</b> &lt;0.003 within 3min</p> <p><b>Moisture measure range:</b> A, Humidity: 0~100% B, Accuracy: ±3%</p> <p><b>PH:</b> A, Measure range: 1~14pH B, Error: ±0.1</p> <p><b>Conductivity:</b> A, Measure range: 0.01%~1.00% B, Error: ±5%</p> <p><b>NPK combined digestion:</b> NPK digestion in soil can be done within 3min</p> <p><b>Measure time:</b> For soil(N,P,K) ≤ 30min 5pcs soil samples at one time ≤ 50min (Including pretreatment time)</p> <p><b>Sensitivity:</b> Red light <math>\geq 4.5 \times 10^{-5}</math> Blue light <math>\geq 3.17 \times 10^{-3}</math> Green light <math>\geq 2.35 \times 10^{-3}</math> Orange light <math>\geq 2.13 \times 10^{-3}</math></p> <p><b>Excellent shock resistance</b></p>
3.	Methane Gas Analyzer	<p><b>Continuous Analyzer for Biogas Recovery &amp; Processing - Methane + Oxygen Range :</b> 0-25.0 % O<sub>2</sub> Any range between 0-50.0% and 0-100.0% CH<sub>4</sub></p>
4.	CO <sub>2</sub> Analyzer Euro Gas	<p><b>CO<sub>2</sub> sensing method:</b> Non-dispersive infrared (NDIR) absorption. Patented Gold-plated optics. Patented Solid-state source and detector</p> <p><b>Measuring method :</b> Sampling (pump 0.35 l/min)</p> <p><b>Operating conditions:</b> 5°C to 40°C (Standard) 0 to 95% RH, non-condensing</p> <p><b>Display:</b> 320x240 TFT Colour Display with touch screen</p> <p><b>Measurement range:</b> 0-20% volume CO<sub>2</sub></p> <p><b>Pressure dependence:</b> 0.13% of reading per mm Hg in normal atmospheric conditions</p>

**Delivery at place:** The items should be delivered free at Department of Civil Engineering, Annamalai University, Chidambaram. Customs duty, clearance charges, freight and other

charges to be borne by the supplier. University will provide the necessary Duty Exemption Certificates as well as GST Exemption certificates (as applicable).

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## S. No. 22: AUDIO VIDEO SYSTEMS

### Technical specifications

Sl. No	Item	SPECIFICATION
1.	SLR camera	still digital camera <b>DSLR D 3300</b>
2.	Video camera	8 mp video handheld camcorders/ video camera
3.	Audio — video work station	<ul style="list-style-type: none"> <li>• CPU: AMD Ryan 9</li> <li>• Windows 10</li> <li>• Professional 64 bit</li> <li>• Graphics card NVIDIA GTX 1660 super</li> <li>• VIDEO EDITING SOFTWARE :</li> <li>• Adobe premiere AUDIO-RECORDING&amp; EDITING SOFT WARE:</li> <li>• Adobe audition</li> </ul>
4.	Audio- recording mixing console	<ul style="list-style-type: none"> <li>• Built-in-24 bit Lexicon digital effects processor</li> <li>• 8+2 channel frame SIZE</li> </ul>

**Delivery at place:** The items should be delivered free at Faculty of Agriculture. Annamalai University, Chidambaram. Customs duty, clearance charges, freight and other charges to be borne by the supplier. University will provide the necessary Duty Exemption Certificates as well as GST Exemption certificates (as applicable).

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